In the Specification:

Please enter two paragraphs on page 4, lines 18-21, amended as follows:

FIG. 5 is a graph of the percent of equilibrated value versus pre-equilibration time in the microrespirometer for a range of evolution rates.

FIG. 6 is a graph of CO_2 evolution rate ~~versus the rate~~ determined by the microrespirometer versus that determined by an infrared analyzer

Please enter a paragraphs on page 5, lines 16-21, amended as follows:

An alkaline solution **21** is injectable, such as using a syringe **18**, into the reaction chamber **12** via [[a]] the solution-receiving opening ~~48~~ **14**, and a sample **19** is placeable in the sample vial **13**. The alkaline solution absorbs the CO_2 in the headspace **17**. The indicator in the alkaline solution changes color when the alkaline solution is "consumed" by CO_2. Preferably the microrespirometer **11** is shaken at a fixed rate (e.g., 240 rpm) on an orbital shaker **20** to enhance CO_2 absorption.

Please enter a paragraphs on page 7, lines 4-10, amended as follows:

The effect of alkaline concentration on the absorption of CO_2 in a closed headspace **17** was investigated at 25°C. A 25-mL sample vial was connected to an ir analyzer so that the vial **13** and the ir detector formed a closed headspace **17** in which air circulated continuously. The 25-mL vial **13** was shaken at 240 [[rmp]] rpm on an orbital shaker **20**. 1-mL portions of 0.2, 0.1, 0.01, and 0.001*M* were injected into the vial **13** through the solution-receiving opening **18** at the beginning of the experiment, and the concentration of CO_2 in the vial **13** was recorded periodically.

Please enter a paragraphs on page 12, lines 10-20, amended as follows:

A validation experiment was performed by comparing results using the microrespirometer **11** with a method using an ir analyzer such as known in the art (FIG. 6). Portions of soil samples of relatively low CO_2 evolution rates (2–5 μL/h/g), unfrozen processed meat samples of medium CO_2 evolution rates (10–100 μL/h/5 g), and room-temperature milk samples of high CO_2 evolution rates (80–280 μL/h/20 mL) were placed in 25-mL sample vials **13**. The CO_2 evolved by microorganisms associated with each sample was determined by the microrespirometer **11** method of the present invention. A duplicate sample in another 25-mL sample vial **12** was also placed in a 250-mL flask, and the CO_2 evolution rate was determined by the ir analyzer method known in the art. The sample vials **12** in the microrespirometers **11** and those in the 250-mL flasks of the ir analysis method were exchanged, and the CO_2 evolution rates determined again with the alternate methods.